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ABSTRACT

The National Household Education Survey (NHES) is a data collection system of the National Center for Education Statistics (NCES) designed to address a wide range of education-related issues. It is a telephone survey of the noninstitutionalized civilian population. In 1995, the NHES included a survey of adult education (AE). This report examines errors arising from the interviewing process in the AE components of the NHES:95. The estimates from this component, and from every survey, are subject to both sampling error and nonsampling error. In this analysis, measurement errors are estimated by reinterviewing a sample of respondents and asking them a subset of the same questions included in the original interview. Statistic produced by comparing the original and reinterviews estimate the consistency of reporting. In the NHES:95 reinterviews, discrepancies between some of the original interview questions and the reinterview questions were reconciled. Reinterviews were completed with 1,109 cases. For most survey questions, the reporting was consistent, and only a few modifications need to be considered for future surveys. However, for questions associated with barriers to AE participation, more problems were identified. The greatest discrepancies were for questions about work-related activities and personal development courses. The reconciliation of the responses to the original interview and reinterview did not give much information about response bias for the questions, but the results did generally support the use of the reinterview as an independent replication of the original interview. (Contains 9 tables, 1 exhibit, and 10 references.) (SLD)

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The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component

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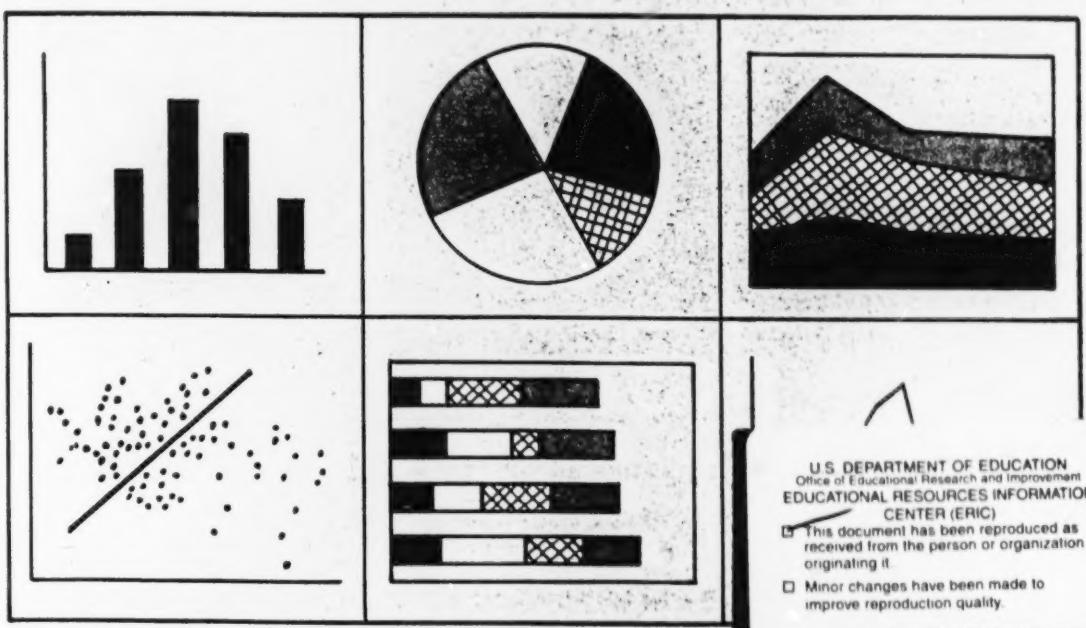

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The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component

Working Paper No. 96-14 June 1996

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The 1995 National Household Education Survey:

Reinterview Results for the Adult Education Component

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June 1996

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1. Background

The National Household Education Survey (NHES) is a data collection system of the National Center for Education Statistics (NCES), which has as its legislative mission the collection and publication of data on the condition of education in the Nation. The NHES is specifically designed to support this mission by providing information on educational issues best addressed by contacting households rather than schools or other educational institutions. The NHES provides descriptive data on the educational activities of the U.S. population and offers policymakers, researchers, and educators a variety of statistics on the condition of education in the U.S.

The NHES is a telephone survey of the noninstitutionalized civilian population of the U.S. Households are selected for the survey using random digit dialing (RDD) methods and data are collected using computer-assisted telephone interviewing (CATI) procedures. Approximately 60,000 households are screened for each administration, and individuals within households who meet predetermined criteria are sampled for more detailed or extended interviews. The data are weighted to permit estimates of the entire population. The NHES survey for a given year typically consists of a screener, which collects household composition and demographic data, and extended interviews on two substantive components addressing education-related topics. In order to assess reliability and inform future NHES surveys, each administration also includes a subsample of respondents for a reinterview.

The primary purpose of the NHES is to conduct repeated measurements of the same phenomena at different points in time. Throughout its history, the NHES has repeatedly collected data in ways that permit estimates to be tracked across time. This includes repeating topical components on a rotating basis in order to provide comparative data across survey years. In addition, each administration of the NHES has benefited from experiences with previous cycles, resulting in enhancements to the survey procedures and content. Thus, while the survey affords the opportunity for tracking phenomena across time, it is also dynamic in addressing new issues and including conceptual and methodological refinements.

A new design feature of the NHES program implemented in the NHES:96 is the collection of demographic and educational information on members of all screened households, rather than just those households potentially eligible for a topical component. In addition, this expanded screening feature includes a brief set of questions on an issue of interest to education program administrators or policymakers. The total screener sample size is sufficient to produce state estimates of household characteristics for the NHES:96.

Full-scale implementations of the NHES have been conducted in 1991, 1993, 1995, and 1996. Topics addressed by the NHES:91 were early childhood education and adult education. The NHES:93 collected information about school readiness and school safety and discipline. The 1991 components were repeated for the NHES:95, addressing early childhood program participation and adult education. Both components underwent substantial redesign to incorporate new issues and develop new measurement approaches. In the NHES:96, the topical components are parent/family involvement in education and civic involvement. In addition, the NHES:96 expanded screening feature includes a set of questions on public library use.

In addition to its topical components, the NHES system has also included a number of methodological investigations. These have resulted in technical reports and working papers covering diverse topics such as telephone undercoverage bias, proxy reporting, and sampling methods. This series of technical reports and working papers provides valuable information on ways of improving the NHES.

1.1 Purpose and Overview of Report

This report examines errors arising from the interviewing process in the Adult Education (AE) component of the NHES:95. The estimates from this component and every survey are subject to both sampling error and nonsampling error. Sampling errors, the differences between the population values and the sample estimates that arise because data are obtained from only a sample of the population, are generally well understood and can be estimated from the survey data themselves. Nonsampling errors, on the other hand, arise from a variety of sources and are more difficult to measure. Important components of nonsampling error for the NHES:95 include coverage, nonresponse, and measurement errors.

In this analysis, measurement errors are estimated by reinterviewing a sample of respondents and asking them a subset of the same questions included in the original interview. The reinterview procedure does not account for all the measurement errors in the interviewing process. For example, systematic errors that would be made in both the original interview and the reinterview are not discovered with this approach. Rather, the statistics produced by comparing the original and reinterview responses estimate the consistency of reporting, assuming both interviews were conducted under the same general conditions. A general review of the design and analysis of reinterviews is given by Forsman and Schreiner (1991). Brick, *et al.* (1994) discuss the use of reinterviews in the context of other nonsampling errors.

When the same respondents are asked the same questions on different occasions, different responses may be obtained. Not all the differences are necessarily the result of measurement error. Discrepancies in responses can be grouped into four categories:

- Circumstances related to the topic under study may have changed between the first report and the second; both answers, although different, may be correct.
- The original response may have been recorded (interviewer error) or reported (respondent error) incorrectly.
- The reinterview response may have been recorded or reported incorrectly.
- Both the original and reinterview responses may have been recorded or reported incorrectly.

In the NHES:95 reinterviews, discrepancies between some of the original interview questions and the reinterview questions were reconciled. This means that when the reinterview response was different from the original response, the interviewer asked the respondent to verify which response was correct. This process of reconciling the responses was done after the reinterview was completed and it was done only for selected questions. The purpose of the reconciliation is described in Section 2.2 of this report. For questions that were reconciled, there are three different responses available for analysis: the original response, the reinterview response, and the reconciled response when the original and reinterview responses were not identical. This report uses all of these responses in various parts of the analysis.

The primary objectives for the NHES:95 reinterview program were:

- To identify survey questions that were not reliable, i.e., the two interviews did not elicit the same response;
- To quantify the magnitude of the response variance for groups of questions collected from the same respondent at two different times; and
- To provide feedback to improve the design of questions for future surveys.

An objective in many reinterview programs is to provide a check on interviewers who might be recording entire interviews without speaking to the respondents. Since the NHES:95 was a computer-assisted telephone interview (CATI) survey operated in a centralized location, there was no need to design reinterviews to verify that interviews were genuine. The CATI interviews were routinely monitored throughout data collection, and it was highly unlikely that a telephone interviewer could invent whole interviews.

A subset of the original AE questions was included in the reinterview program for the NHES:95. This was done to reduce the burden on respondents who had already completed one or more full interviews and to prevent asking some questions that were very time dependent. The appendix contains a copy of the reinterview questions. In general, they were selected based on the following criteria:

- Questions that were key statistics or used for calculating critical estimates;
- Questions required for critical skip patterns or that provided information for displays for the subsequent sections and questions;
- Questions that were not time dependent (for example, it would be inappropriate to ask, "During the past week, did you work at a job for pay or income?"); and
- Questions that were new to the NHES and had not been tested in other surveys.

Questions were selected from specific subject areas. Those subject areas chosen for the reinterview are given below:

Educational attainment
High school diploma
High school requirement through a GED test
Work experiences in the past 12 months
Language background
Participation in adult education
Adult education programs and courses
Employer awareness
Employer support for adult education
Barriers to participation.

Section 2 of this report summarizes some of the critical features of the sample design of the NHES:95 and the design for the reinterview program. In Section 3, the analysis methods used to assess the reliability of reporting reinterview data are described. The gross and net difference rates for the NHES:95 reinterview data are presented in Section 4 as well as a discussion of the implications of the results for the analysis of estimates from the AE component of the NHES:95 and the planning for future AE studies. The final section summarizes the findings and provides some recommendations for future work.

2. Design Considerations

2.1 Sample Design of NHES:95

The NHES:95 was a random digit dial (RDD) telephone survey conducted with persons in a sample of telephone households in the 50 States and the District of Columbia between January and April 1995 using computer-assisted interviewing. First, a screening interview was administered to identify households and eligible persons within the households. The study included two components: an Early Childhood Program Participation (ECPP) interview of the parents of children from birth to third grade (with a maximum age of 10 years); and an AE interview of adults 16 and older and not enrolled in elementary or secondary education.[1] The respondent for the ECPP interview was the parent or guardian who knew the most about the child's care and education. The respondent for the AE interview was the sampled adult.

For the AE component of the NHES:95, the target population was the noninstitutionalized civilian population of persons age 16 and older in the United States who were not currently enrolled in secondary school. Since only persons in telephone households were surveyed, the estimates were adjusted so that the totals were consistent with the total number of persons in both telephone and nontelephone households. Screening interviews were completed with 45,465 households. The estimated response rate for the screening of households was 73.3 percent, where the response rate is the percentage of all possible interviews that were completed, weighted using the probabilities of selection. Adults were sampled for the AE interview in a subsample of these households. Table 1 shows the number of interviews sampled and completed, as well as the weighted completion rate (the percentage of sampled eligible adults who completed the adult education interview) and the overall response rate (the screener response rate multiplied by the interview completion rate).

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[1] In addition to the regular AE interview, a splice sample AE interview was administered in approximately 4,000 households using the NHES:91 participation questions. The interviews in the splice sample were excluded from the reinterview.

Table 1. Adult education interviews weighted completion and response rates

	Number sampled	Number completed	Completion rate	Response rate
Households for screening	59,713	45,465	73.3	73.3
Adult education	24,538	19,722	80.0	58.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

2.2 Reinterview Design

Reinterviews with the respondents to the original interview were designed to supply data about the reliability of the data collected. A random sample of completed AE respondents was selected to accomplish this objective. However, not all interviews were eligible for selection for a reinterview.

Households that had been sampled for other special methodological samples were excluded from the reinterview sample. These special samples included the test of the expanded screener, the splice sample AE interview, and the Bias Study. The expanded screener was a test of the feasibility of collecting demographic monitoring information and a brief substantive component from all households. The splice sample AE interview administered the NHES:91 participation questions instead of the NHES:95 participation questions to examine whether the different designs of the AE screening procedures and questionnaires influenced estimated participation rates. The Bias Study examined the potential size of the bias of NHES:95 estimates using an intensive reinterview procedure. The goals of the Bias Study are closely related to the reinterview study, but the methods used to obtain the data were very different. The Bias Study is described in detail in Brick, *et al.* (1996) and will be referenced as the Bias Study in the remainder of this report.

One last exclusion for the reinterview sampling involved language problem cases. If the original interview was coded as a language problem case but later completed (perhaps by a bilingual interviewer), the case was excluded from reinterview sampling. This restriction was at the household level rather than at the individual interview level; i.e., if any interview in the household was a language problem case, then the household was not eligible for reinterview sampling.

The remaining households and the AE interviews within these household were eligible for sampling for reinterview once all of the interviews in the household were completed (all completes or ineligibles). Thus, if some of the interviews in the household were not completed and others were completed, none of the completed interviews in the household were eligible for reinterview sampling. This occurred most often when the sampled person could not be contacted at a convenient time to complete the interview. This restriction in the sample was implemented to prevent the reinterview activity from disrupting the completion of the original interviews.

Table 2 details the number and percent of households eligible for reinterview sampling as well as the reasons for ineligibility. The first part of the table shows that 12 percent of the sampled households were excluded because they were sampled for the splice sample or the expanded interview sample. This random sampling was done prior to collecting any data from the households so the exclusions are from all sample households. The other exclusions given in the bottom portion of Table 2 were implemented by sampling from persons who had completed the AE interview. The AE interviews that were excluded at this stage would have been eligible for sampling if other conditions were satisfied (e.g., if all the other interviews in the household had been completed). As a result of this type of nonresponse, bias could be introduced into the estimates. For example, cases that were finalized but were not complete or ineligible (e.g., final refusals) could have different characteristics than the completed cases. In all, 29 percent of the households that had one or more adults sampled for AE were excluded from the reinterview due to these reasons.

Once the household and the interviews within household became eligible for reinterview, specific adults were sampled. The sampling for reinterview was not done until at least 2 weeks after all original interviews in the household were completed so that respondents were unlikely to simply remember and repeat their earlier responses. Forsman and Schreiner (1991) discuss the issue of the time between the original interview and reinterview. No analysis of the effect of the time difference was undertaken in this study. This time restriction was relaxed at the end of the data collection period so that all eligible AE interviews could have an opportunity to be sampled.

The only other step in sampling was designed to limit the response burden on a household. No more than one case was sampled for reinterview from the same household, although any of the completed AE interviews in the household could have been sampled for the reinterview. Since 98 percent of the households sampled for AE had only one adult sampled for AE, this limitation was very minor.

Table 2. Households eligible for reinterview sampling, NHES, 1995

	Number of households	Percent of households with completed screeners
Total completed screeners	45,465	100.0%
Splice sample - ineligible	4,082	9.0%
Expanded screener - ineligible	1,478	3.3%
Total ineligible	5,560	12.2%
Remaining eligible	39,676	87.8%
	Number of households	**Percent of households with at least 1 adult sampled**
Households with at least one adult sampled	23,275	100.0%
Exclusions from sampling:		
Finalized, but not complete or eligible	3,618	15.5%
Language problem	2,173	9.3%
Not finalized	805	3.5%
Sampled for Bias Study	229	1.0%
Total eligibles excluded	6,825	29.0%
Total eligible for reinterview sampling	16,450	71.0%

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The interviews were sampled for the reinterview at different rates for AE participants and nonparticipants. The rates were set to achieve sample size goals: for the participants, the goal was to complete 750 interviews; for the nonparticipants, 250 interviews. These goals were set to obtain enough reinterview cases to be able to analyze questions that were only asked for certain types of participants (e.g., those in work-related activities) and for questions asked only for nonparticipants. The overall sampling rate for participants was 10 percent and the rate for nonparticipants was 4 percent.

A sample of 1,289 cases was selected for reinterview. A total of 1,109 cases were completed for an unweighted completion rate of 86.0 percent. Table 3 shows the number of cases sampled for reinterview, the number of those that resulted in completed reinterviews, and the unweighted completion rate by participation status. The cooperation rate for AE participants was much higher than the rate for nonparticipants.

Table 3. Participation status by reinterview sample sizes, completed interviews, and unweighted completion rates

Participation status	Sample size	Completed reinterviews	Unweighted completion rate
All	1,289	1,109	86.0%
AE Participants	917	882	96.2%
AE Nonparticipants	372	227	61.0%

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The main reason for not completing the reinterview was the refusal of the respondent to participate. Approximately 61 percent of nonrespondents in both participants and nonparticipants refused to participate in the reinterview. A majority of the remaining nonresponse was due to the inability of interviewers to contact the respondent during the reinterview time period. This reason had several causes, including never making contact with the respondent, reaching a disconnected telephone number or number that had been changed, and attempting to reach someone who had moved to a new household with no telephone or forwarding number.

The reinterview was conducted using the same CATI system that was used in the original interview, modified to display the reinterview questions instead of the original ones. The interviewers read identical words to the same respondent who completed the original interview. No substitutions were allowed for the original respondent.

After all of the questions for the reinterview were asked, the original and reinterview responses were compared automatically by the computer for a subset of questions. This is the reconciliation process discussed earlier. Up until this time, the interviewer was unaware of the responses given by the respondent in the original interview. For any of the selected questions that had different

responses in the original and reinterview, a reconciliation screen appeared and the interviewer asked which of the two responses was the best answer. A typical screen used to resolve the differences is shown in Exhibit 1. For most of the analysis, the results are based on differences between the original and the reinterview responses. When the differences between the original and reconciled responses are used, they are clearly identified.

Exhibit 1. -- Typical CATI reconciliation screen

14.08 R11

One time we spoke with you we recorded that you did not participate in computer-based or interactive video instruction without an instructor present and one time we recorded that you did participate in computer-based instruction without an instructor present. What is the best answer?

( )

1. PARTICIPATED IN COMPUTER-BASED INSTRUCTION ONLY
2. PARTICIPATED IN INTERACTIVE VIDEO INSTRUCTION ONLY
3. PARTICIPATED IN BOTH
4. DID NOT PARTICIPATE IN EITHER
5. BOTH ANSWERS CORRECT (PARTICIPATED AFTER ORIGINAL INTERVIEW WAS CONDUCTED OR 12 MONTHS PRIOR TO ORIGINAL INTERVIEW)

3. Analysis Methods

Several statistics have been developed to assess the reliability of reporting using reinterview data. The two statistics used in this report are the gross difference rate and the net difference rate. These statistics were used in previous NHES reinterview reports (Brick and West, 1992; Brick, Rizzo, and Wernimont, 1995) and are well documented in the reinterview literature (Hansen, Hurwitz, and Pritzker, 1964; Biemer and Stokes, 1991; U.S. Bureau of the Census, 1985).

For dichotomous response variables, the gross difference rate measures the proportion of questions with different responses in the two administrations of the interview. Thus, it is an estimate of the

reliability or consistency of reporting. The net difference rate takes account of offsetting misclassifications. If the second interview is the true value for the respondent, the net difference rate estimates the bias.

Since the goal of this analysis is to provide estimates of response variability of the national estimates, the probability of selection for the interviews and the other weighting adjustments are included in the analysis. The sample weight associated with each completed interview was adjusted to account for the differential sampling of participants and nonparticipants employed in the reinterview. The weights for nonparticipants were multiplied by a factor of 2.5 to adjust for the differences in the sampling rates. The replicate weights used to compute the sampling errors of the estimates were also adjusted in this manner so that the appropriate sampling errors could be computed using jackknife methods.

Table 4 shows the general format of the possible reporting outcomes from the original interviews and reinterviews when the question has only two possible values. From tables formatted in this fashion, it is possible to estimate several features of the consistency of the reporting between the original survey and the reinterview. For example, the off-diagonal cells estimate the responses that were reported differently in the original interview and the reinterview. The definitions of the statistics used in this report are given below, where the cell counts are the weighted totals. Cases with missing values for the characteristic are dropped from the analysis.

Table 4. General format of interview-reinterview results

	Original interview		
Reinterview	Number of cases with characteristic	Number of cases without characteristic	Total
Number of cases with a characteristic	a	b	a + b
Number of cases without a characteristic	c	d	c+d
Total	a + c	b + d	n = a + b + c + d

3.1 Gross Difference Rate

The gross difference is equal to the weighted number of cases reported differently in the original interview and the reinterview. The gross difference rate is the weighted ratio of the gross difference divided by the estimated total number of cases. The gross difference rate is:

$$G = \frac{1}{\sum_1^n w_i} \sum_1^n w_i \{x_{1i} - x_{2i}\}^2 \tag{3.1}$$

where x_{1i} is the response to the original interview for case i;

x_{2i} is the response to the reinterview for case i; and

w_i is the full sample weight for case i described in the previous section.

For characteristics that have exactly two possible outcomes, the gross difference rate, expressed as a percentage, can be written using the terms from Table 4 as

$$G = 100 \frac{b + c}{n} \tag{3.2}$$

This can easily be seen to be a special case of (3.1) where the x_i terms only take on the values of 0 or 1. The gross difference rates for all questions were computed using (3.2) and only data from the original and reinterview responses unless otherwise noted. For binary data, it is clear from (3.2) that the gross difference rate is an estimate of the percentage of cases not reported the same in both interviews, i.e., those falling in the off-diagonal cells. The gross difference rate divided by 2 is a measure of the response variance. Forsman and Schreiner (1991) show that this is an unbiased estimate of response variance if the observations are independent and identically distributed. The response variance is defined as the variation associated with the responses to the same question when the survey is repeated under the same general conditions.

For nominal variables, neither (3.1) nor (3.2) can be used to compute the gross difference rate because the values assigned to the levels of the characteristic are not scaled. In this report, two approaches were taken to handle nominal variables, depending on the specific variable. For some nominal variables, response categories were collapsed so that a binary variable resulted and the gross difference rate was computed for this new binary variable using (3.2). This approach was used for all the questions about barriers to participating that had response categories of 'major,' 'minor,' or 'no obstacle.' The minor and no obstacle response categories were collapsed together. The response categories 'major,' and 'minor' were also collapsed to examine the response variability from a different perspective. The collapsing

strategy was also used for the question about how interested adults were in taking a work-related course (WRHOWINT) by collapsing the 'somewhat' and 'slightly' interested response categories and the question about computer based or interactive video instruction (CVONLY) by collapsing the 'computer instruction,' 'interactive video instruction,' and 'both' response categories.

The second approach was used for three questions with multiple response categories. Two of the questions were about language background and had response categories of 'English,' 'Spanish,' or 'Another language.' For these questions, three binary variables were computed from the original variable and then the gross difference rate was computed for each new variable using (3.2). The first binary variable has the value 1 if the response was 'English' and has the value 0 otherwise; the second binary variable has the value 1 if the response is 'Spanish' and has the value 0 otherwise; the third binary variable has the value 1 if the response is 'Another language' and has the value 0 otherwise. The other question was the one that asked which obstacle was the main thing that prevented the adult from participating (F23). For this question, three binary variables were created and the rate was computed using (3.2). The first binary variable has the value 1 if the response was 'Time' and has the value 0 otherwise; the second binary variable has the value 1 if the response was 'Money or cost' and has the value 0 otherwise; the third binary variable has the value 1 if the response was 'Child care' and has the value 0 otherwise. Note that none of the responses to this question was 'Transportation' so no binary variable was created for this level. The same procedure was followed for computing the net difference rate.

3.2 Net Difference Rate

The net difference rate can be defined for characteristics that are binary or continuous. The net difference rate for a continuous variable is given by

$$N = \frac{1}{\sum_1^n w_1} \sum_1^n w_i \{x_{1i} - x_{2i}\} \tag{3.3}$$

where the variables are defined as in (3.1). The net difference rate is thus the average difference between the original and reinterview responses.

For the binary case, the net difference is the difference between the weighted number of cases with a characteristic as reported in the original interview and the weighted number of cases in the reinterview. That is, $(a + c) - (a + b) = c - b$, using the terms in Table 4. Thus, a positive net difference rate indicates that more adults reported having the characteristic in the original interview than in the

reinterview. While the gross difference includes differences in both directions, the net difference is the nonoffsetting part of the gross difference. Written as a percentage, the net difference rate is:

$$N = 100\frac{c-b}{n}. \tag{3.4}$$

If the reinterview response is the "true" value, or at least a better approximation to the true value, then the net difference rate is a measure of the bias of the estimate. Generally speaking, this was not the case in the NHES:95 since the reinterview responses were collected under the same conditions as the original interview. Brick, *et al.* (1994) discuss this issue in more detail. In some surveys, it is assumed that reconciliation results in more accurate responses so that the net difference rate computed using the original and the reconciled responses is a valid estimate of response bias. Brick and West (1992) and Brick, *et al.* (1994) found that there was little empirical support for this assumption, even for reconciled data.

The net difference rate computed from the original and reinterview data can be used to evaluate one of the assumptions associated with the gross difference rate. If the reinterview is an independent replication of the original interview, then the gross difference rate is a valid measure of response variance. Generally, it is assumed that this condition holds, but the net difference rate provides a means of partially evaluating this assumption. If the interviews are replications, then the estimated net difference rate should be equal to zero in expectation (the original interview and reinterview should have the same average value). Biemer and Forsman (1992) discuss this issue more fully. Thus, the net difference rates for the questions in the AE reinterview study presented below can be used to evaluate this assumption.

The Bias Study mentioned earlier was undertaken to attempt to more accurately measure response bias than could be done using these reinterview data. This study undertook to obtain responses from a subsample of respondents using very different methods than used in the reinterview. The data from this study provide additional insight on the response bias of the questions in the AE interview.

4. Findings

Below, the gross and net difference rates for the reinterview questions are presented along with a discussion of the implications of the results for the analysis of estimates from the AE component of the NHES:95 and the planning for future AE studies.

The analysis is divided into three sections. The first part considers questions related to the estimation of the rates at which adults participate in education activities. All nine questions used to define AE participation and the type of AE participation were included in the reinterview and are discussed. Another question related to participation, but not included in its formal definition, is about using computer-based or interactive video instruction without an instructor being present. This question is covered with the other participation questions.

The second part covers questions related to the education background and work force activities of the adult. These are questions about years of schooling, degrees obtained, English speaking ability, labor force status, and job benefits. The third and final part covers questions that were asked about obstacles that may have prevented adults from taking part in AE activities, the number of programs or courses, and other characteristics of participation in AE activities. The questions about obstacles are sometimes called the barriers questions.

For each of the parts, the estimates and their standard errors are presented along with the gross and net difference rates and their standard errors. The estimates are the weighted percent of respondents reporting in the first response category of the question based only on the data from the respondents to the reinterview. Since these are restricted to the reinterview subsample, the estimates may differ from those from the full sample. The estimates are restricted to those adults who were asked the question. For example, persons whose main language was English were not asked the questions about participating in English as a Second Language (ESL). The statistics reported (the percent of adults taking ESL and the gross and net difference rate) for this question were based on the subset of respondents whose main language was not English. Equation (3.2) was used for the gross difference rate and equation (3.4) was used for the net difference rate unless specified otherwise.

Questions that were answered by fewer than 20 adults in the reinterview are excluded from the analysis because of the instability of estimates based on such small sample sizes. In addition, a short series of questions asked about a specific work-related course are excluded because of the difficulty associated with matching the course described in the reinterview to the exact same course in the original interview.

In general, the standard errors for the gross and net difference rates are large and not very stable since they too are estimates based on relatively small sample sizes. Thus, the criterion that the error

measures be statistically different than zero using a significance level of 10 percent[2] is not satisfied for some questions that have large gross difference rates. For these questions, the large rates are mentioned but qualified by noting that they do not meet the statistical criterion.

4.1 Questions About AE Participant Rates

Table 5 shows the estimates, the gross and net difference rates, and the standard errors for the questions that define AE participation. The nine questions that are used to classify an adult as an AE participant are presented along with the overall participation composite variable (an adult is a participant if he/she was involved in any of the nine specific activities). The last question in the table is about using computer-based or interactive video instruction without an instructor being present. The variable names and numbers in the table can be referenced to the specific questions by looking at the reinterview questionnaire in the appendix. For example, ESLANG is questionnaire number B1 that asks about participation in ESL.

The gross difference rates for all of the participation questions are relatively small. The only gross difference rate that is statistically greater than zero is for the overall participation variable, and the gross difference rate for this statistic indicates that only about 13 percent of the adults were inconsistent in their reporting of questions used to construct this variable (i.e., reported conflicting responses in the original interviews and reinterviews). The main contributors to this inconsistency are the questions that measured participation in work-related (WRACTY) and personal development courses (SAACTY). These questions have gross difference rates that are roughly equivalent to the rate for the overall participation variable.

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[2] The 10 percent significance test corresponding to a t-statistic of 1.65 is used in this analysis without taking into account the problem of testing many statistics at the same time. This approach is followed because of the exploratory nature of the analysis. One of the main goals of the study was to identify questions that can be improved and the loss associated by erring in suggesting that more questions be studied is not as large as the opposite type of error.

Table 5. Participation questions by estimated percent, gross and net difference rates based on unreconciled reinterview responses

Question	Sample size	Estimated		Gross difference rate		Net difference rate	
		percent	s.e.	estimate	s.e.	estimate	s.e.
Overall participation	1,109	44.9	142.3	13.4	3.7	-2.7	37.8
ESLANG (B1)	40	6.5	23.6	0.0	0.0†	0.0	0.0†
BSIMPROV (C1.a))	146	3.8	14.0	3.6	13.5	1.3	5.1
BSGED (C1.b)	146	4.3	16.1	2.3	8.7	1.8	6.8
BSHEQUV (C1.c)	146	1.5	5.7	1.2	4.6	0.3	1.0
CRDEGREE (D1.a)	1,109	12.0	36.2	2.8	5.5	0.6	4.6
CRVOCDIP (D1.b)	1,109	3.9	11.9	4.0	10.2	0.5	3.3
APPRENTI (E1)	1,109	1.2	3.7	1.7	2.6	-0.4	1.3
WRACTY (F1)	1,109	20.7	62.3	12.5	15.2	-4.7	8.6
SAACTY (G1)	1,109	22.4	67.5	14.3	20.7	0.3	23.3
CVONLY (H1)	923	17.0	8.4	12.8	9.4	1.8	2.1

† The estimate of the standard error is zero, but the estimate is subject to variation due to sampling error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The net difference rates in Table 5 are ones based on the comparison of the original and reinterview values. Since none of these questions have statistically significant net difference rates, the estimates are consistent with the assumption that the reinterview was an independent replication of the original interview, at least for these questions. Thus, the assumption that the gross difference rate is a valid measure of response variability is supported by these results.

Table 6 presents the statistics on the same questions, but the gross and net difference rates are computed using the reconciled reinterview responses rather than the unreconciled ones used in Table 5. The reinterview response was considered to be the reconciled value unless the respondent indicated in reconciliation that this was an incorrect response. The estimates of primary interest in this table are the net difference rates. If the reconciliation resulted in obtaining more reliable responses for these questions, then the reconciled net difference rates should be more appropriate estimates of the bias in the estimates.

Table 6. Participation questions by estimated percent, gross and net difference rates based on reconciled reinterview responses

Question	Sample size	Estimated		Gross difference rate		Net difference rate	
		percent	s.e.	estimate	s.e.	estimate	s.e.
Overall participation	1,109	44.9	142.3	12.5	10.0	-3.4	37.3
ESLANG (B1)	40	6.5	23.6	0.0†	0.0†	0.0	0.0†
BSIMPROV (C1.a))	146	3.8	14.0	2.3	8.4	0.6	2.3
BSGED (C1.b)	146	4.3	16.1	1.9	6.9	1.4	5.2
BSHEQUV (C1.c)	146	1.5	5.7	1.0	3.7	0.1	0.4
CRDEGREE (D1.a)	1,109	12.0	36.2	1.7	5.0	0.9	2.7
CRVOCDIP (D1.b)	1,109	3.9	11.9	2.8	6.6	0.6	3.6
APPRENTI (E1)	1,109	1.2	3.7	1.3	1.4	-0.1	2.1
WRACTY (F1)	1,109	20.7	62.3	9.7	7.4	-5.7	4.7
SAACTY (G1)	1,109	22.4	67.5	9.4	12.3	-1.2	12.5
CVONLY (H1)	923	17.0	8.4	10.0	4.2	1.1	1.4

† The estimate of the standard error is zero, but the estimate is subject to variation due to sampling error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

None of the net difference rates from the reconciled responses are significantly different from zero, at least partially due to the large sampling errors of these statistics. For the three variables with larger gross difference rates observed in Table 5 (participation overall, in work-related activities, and in personal development courses), the net differences are negative. This means that more adults reported participating in the reconciled reinterview than in the original interview.

Although not statistically significant, these results are consistent with the hypothesis that adults might be more likely to be unable to recall some type of participation in the original interview, but report more in the reconciled reinterview. In particular, one theory is that the original interview might act as a means to either improve recall or to help the respondents better understand how their activities fit with the survey definitions. The results are far from conclusive concerning this hypothesis, but they do suggest that adults may have under-reported AE participation, particularly work-related courses, in the NHES:95.

One of the main reasons for conducting the Bias Study mentioned earlier was the concern that the reconciliation responses would not be much better than the reinterview responses in terms of accurately corresponding to the activities of adults. The fact that the reconciled and unreconciled net

difference rates are not very different could be a reflection that this concern is valid. If so, then the reconciled net difference rates are not valid estimates of response bias. The Bias Study, which concentrated on the bias in the estimates of work-related and personal development course participation, provides additional information on this topic.

Overall, the measurement error statistics for the participation questions are relatively small and the adults consistently responded to these questions across interviews. Since these questions are so critical to the AE interview, it might be worthwhile studying the work-related and personal development courses questions to determine if there are other ways to improve them. These questions were recognized as being the most difficult ones during the development of the interview and continued efforts to improve them appear to be worthwhile. The results also suggest that adults may be under-reporting participation, particularly in work-related courses, but the reinterview and the reconciliation of responses do not adequately address this potential bias.

4.2 Questions About Background

Table 7 gives the estimates, the gross and net difference rates, and the standard errors for questions related to the education background and work force activities of the adult. The questions are ones asked either at the beginning or end of the interview. Two questions (MEDICAL and SICKPAY) correspond to answers to question numbers I28 or I29, depending on whether or not the person was self-employed. Equations (3.1) and (3.3) were used to compute the gross and net difference rates for the following continuous questions: IBGRADE, IBEMPL12, and IBWORKMO.

The gross difference rates for all 23 background questions are small, with only three questions having a gross difference rate over 10 percent and none over 20 percent. The three questions with rates over 10 percent are ones about earning a vocational or technical diploma after leaving high school (IBVOCDIP), whether their occupation had legal or professional requirements for continuing training or education (REQUIRMN), and whether or not they had been unemployed and looking for work for as long as a month during the last year (UNEMLOOK). Of these three, only REQUIRMN is statistically significant.

The net difference rates for two questions appear to be large (IBVOCDIP and IBOTHEMP), but the standard errors of both of these rates are so large that the estimates are not significantly different from zero. On the other hand, two questions (IBSPEAK91 and REQUIRMN) have

relatively small net difference rates, but are significantly different from zero. These results may have more to do with the instability of the standard errors of the net difference rates than any bias in the estimates.

Only one of these questions (IBGED) was reconciled if the respondent gave different responses in the original interview and reinterview. The net difference rate for IBGED is -0.4 percent (with a standard error of 7.9 percent). This is not very different from the unreconciled rate and does not reveal any potential biases associated with this question.

Table 7. Background questions by estimated percent, gross and net difference rates based on unreconciled reinterview responses

Question	Sample size	Estimated		Gross difference rate		Net difference rate	
		percent	s.e.	estimate	s.e.	estimate	s.e.
IBGRADE (A1)	1,107	6.0	2.9	1.2	0.5	0.1	0.1
IBVOCDIP (A10V)	253	13.3	14.1	17.0	10.9	-8.4	29.9
IBDIPL (A2)	476	67.9	69.8	0.9	2.8	0.8	2.6
IBUSDIPL (A3)	651	96.6	0.8	4.0	10.2	0.5	3.3
IBDIPLYR (A4)	651	4.0	3.9	2.0	3.9	-0.3	0.2
IBGED (A5)	1,024	7.3	20.6	4.9	0.7	-1.8	9.4
IBWORK12 (A6)	1,109	74.6	23.2	5.2	7.1	-0.8	0.6
IBSELFEM (A7)	923	18.2	13.1	3.9	2.0	0.3	5.9
IBOTHEMP (A8)	153	40.4	27.9	6.3	11.7	6.3	11.7
IBEMPL12 (A9)	906	1.4	0.2	0.3	0.2	0.0	0.0
IBLANG1 (A10.a)	1,109	91.1	3.6	1.0	0.7	-0.4	1.2
IBLANG2 (A10.b)	1,109	2.8	0.2	0.3	1.0	0.1	0.4
IBLANG91 (A10.c)	1,109	6.1	3.7	0.7	0.3	0.2	1.7
IBSPEAK1 (A11.a)	1,109	96.0	5.2	1.1	1.2	-1.0	1.6
IBSPEAK2 (A11.b)	1,109	1.6	1.9	0.7	1.7	0.4	1.7
IBSPEAK91 (A11.c)	1,109	2.4	3.3	0.6	0.1	0.6	0.1
REQUIRMN (I14)	1,109	21.5	25.2	14.7	6.0	1.5	0.5
IBWORKMO (I24)	915	10.7	0.2	4.7	4.2	0.2	0.6
UNEMLOOK (I25)	244	36.8	1.5	15.6	19.5	-0.8	5.2
MEDICAL (I28/9.a)	829	72.3	10.8	7.6	1.3	-2.7	10.9
SICKPAY (I28/9.b)	759	65.4	18.5	7.6	3.5	-0.8	3.2
VACATPAY (I28.c)	759	74.7	2.8	6.4	3.0	1.9	3.2
RETIRMNT (I28.d)	829	61.1	12.9	8.6	9.8	-1.7	3.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

The background questions are generally specific questions that the respondent apparently comprehends and can respond to consistently from interview to interview. The evidence from the reinterview shows that there are no serious response problems with any of the questions. Only three questions have gross difference rates that even merit further consideration and the gross difference rates for these questions are not large. However, some improvement in the question wording for these three could be considered. For example, the unemployment question (UNEMLOOK) is a compound question (both unemployed and looking for work) qualified by a time frame, and it may not be clear to the respondent whether the descriptor (for as long as a month) applies to either or both parts of the question.

4.3 Questions About Barriers and Other Characteristics

Table 8 gives the measurement error estimates for barriers questions (questions about obstacles that may have prevented adults from taking part in AE activities) and other characteristics of participating in AE activities. Equations (3.1) and (3.3) were used to compute the gross and net difference rates for the following continuous questions: CRPRGNUM, WRNUM, SANUM, and CVNUM. The gross difference rates in Table 8 are much larger than those discussed earlier. Approximately one-third of the 31 questions have gross difference rates greater than 20 percent, another third have gross difference rates between 10 percent and 20 percent, and the remaining third have gross difference rates of less than 10 percent.

The vast majority of the questions with large gross difference rates are from the barriers questions (questions in F22, F23, and F24). For F22 and F24, respondents were asked if each of a list of potential obstacles was a major, minor, or no obstacle. For this analysis, the minor and no obstacle responses are considered to be the same response. A different collapsing of the response categories is presented later.

Most of the items in the list of potential obstacles in F22 and F24 have large gross difference rates: only 4 of the 15 questions on the lists that were analyzed had gross difference rates less than 10 percent and the largest gross difference rate approaches 50 percent (WRTIWORK). As with other gross and net difference rates discussed above, nearly all of these estimates are not statistically significant different from zero because of the large standard errors.

Table 8. Barriers questions and other characteristics by estimated percent, gross and net difference rates based on unreconciled reinterview responses

Question	Sample size	Estimated		Gross difference rate		Net difference rate	
		percent	s.e.	estimate	s.e.	estimate	s.e.
CRPRGNUM (D2)	249	1.2	0.1	0.9	0.5	0.1	0.1
CRAWARE (D17)	245	86.1	2.6	13.8	8.4	13.8	8.4
CREMPREQ (D18.a)	213	5.1	1.5	5.0	3.9	-5.0	3.9
CREMPWP (D18.b)	213	42.4	3.9	22.9	11.5	16.5	12.3
CREMPSPA (D18.c)	213	9.6	2.1	10.2	36.9	10.2	10.5
CREMPPAY (D18.d)	213	28.5	3.1	17.3	11.5	17.3	11.5
WRNUM (F2)	348	2.5	0.1	2.4	0.4	0.1	0.1
WRINTRST (F19)	685	24.6	13.7	16.0	5.0	-2.2	2.4
WRHOWINT (F20)	212	57.1	12.3	15.7	1.5	15.7	1.5
WRKNOW (F21)	212	64.7	14.4	26.8	17.1	5.1	18.7
WRPRTIME (F22.a)	144	50.7	3.1	30.1	40.7	-4.8	24.9
WRPRCOST (F22.b)	144	42.5	3.0	6.5	19.3	3.4	10.1
WRPRCHIL (F22.c)	56	52.6	18.5	39.4	66.8	39.4	66.8
WRPRTRAN (F22.d)	144	10.2	2.2	5.1	15.1	2.8	8.5
WRPRGEN1 (F23, time)	43	47.7	9.0	8.0	4.9	-5.3	5.3
WRPRGEN2 (F23, money)	43	44.1	9.5	13.6	5.5	2.1	6.6
WRPRGEN3 (F23, child care)	43	8.3	5.3	5.6	3.5	3.3	3.4
WRTIFAM (F24A.a)	58	30.0	4.5	4.2	5.7	4.2	5.7
WRTICHOR (F24A.b)	58	34.9	28.5	16.8	18.9	6.0	9.7
WRTICLHR (F24A.c)	56	50.0	23.0	30.8	35.6	-7.8	17.3
WRTIWORK (F24A.d)	56	47.5	38.2	49.3	54.8	-9.4	23.0
WRTIACTI (F24A.e)	58	17.5	24.1	14.3	90.4	9.2	95.7
WRTITRAV (F24A.f)	58	18.3	2.7	24.4	28.3	13.9	19.8
WRTIOTH (F24A.g)	58	5.4	5.9	14.9	17.2	-4.9	9.2
WRMOTUIT (F24B.a)	45	73.3	27.7	20.5	6.8	-12.8	29.3
WRMOBOOK (F24B.b)	45	54.2	4.3	36.2	44.2	-22.1	7.9
WRMOTRAN (F24B.d)	45	2.7	8.5	0.0	0.0†	0.0	0.0†
WRMOOTH (F24B.e)	45	13.9	43.4	31.5	97.0	31.5	97.0
WREMPOFF (F26)	466	18.1	8.9	12.8	1.5	3.9	9.3
SANUM (G2)	258	1.9	0.1	3.0	1.0	0.1	0.1
CVNUM (H2)	116	4.4	4.3	10.7	7.3	0.3	0.9

† The estimate of the standard error is zero, but the estimate is subject to variation due to sampling error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

In order to be asked these questions, the adult had to satisfy three criteria: (1) not be a participant in work-related courses; (2) be interested in taking one or more work-related courses, and; (3)

know of a course he/she could take. As a result, only about one-fifth of the AE respondents were administered these work-related barriers questions (similar questions in other sections of the interview did not have enough respondents to meet the minimum reporting requirements of this report). Nevertheless, the point estimates of the gross difference rates for these questions are larger than any of those observed for other questions.

As mentioned earlier, the 'minor' and 'no obstacle' response categories were collapsed together to form a binary variable for the analysis described above. An alternative approach is to collapse 'major' and 'minor' together to form the new binary variable. The original collapsing addresses the question of how consistently adults classified an obstacle as being major, while the alternative collapsing focuses on whether or not it was an obstacle, regardless of the intensity of the obstacle. Table 9 gives the estimated gross difference rates and standard errors for the two versions of the binary variable. Many of the very large gross difference rates appearing in the original collapsing of the response categories are smaller when 'major' and 'minor' are collapsed, although for one question (WRTIACTI) the opposite is true. Adults may be more consistent in reporting whether or not it was an obstacle, but have more difficulty assessing whether or not the obstacle is major or minor, even though this is not conclusive given the size of the standard errors for these estimates. This suggests a somewhat better strategy for analysis of these questions might be to ignore the 'major' and 'minor' categories and analyze only whether or not the adult reported it as an obstacle.

Another question with a large gross difference rate is the one that asked adults if they knew of any work-related courses that they could have taken (WRKNOW), but the standard error of the estimate is so large that even this large estimate is not statistically significant. This question is very important because it is part of a series of questions used in screening before asking the barriers questions. The gross difference rates for the other two questions in this series (WRINTRST and WRHOWINT) are also moderately large. These results suggest that the questions used to determine which adults are asked the barriers questions may be subject to response problems in addition to the problems in the barriers questions themselves.

Turning briefly to the net difference rates, only 2 of the 31 questions in Table 8 have net difference rates that are statistically significant at the 10 percent significance level (WRHOWINT and WRMOBOOK). This again reinforces the assumption that the reinterview responses can be treated as independent repetitions of the interview.

Taken as a whole, the findings suggest that the barriers questions and other questions related to them may be subject to important response variability. The size of the standard errors of the

estimates limits the ability to determine if the estimates are statistically significant, but the point estimates for many of these questions are large. In this small sample, the adults frequently responded differently when the same questions were asked in the original interview and the reinterview. The inconsistency of the responses to these questions should be considered when using these questions in analyses or reports. Furthermore, the method for addressing the concept of barriers to participating in AE activities, and the feasibility of identifying a reliable approach to do so, should be re-evaluated for future surveys.

Table 9. Barriers questions by estimated gross difference rates for different methods of collapsing responses based on unreconciled reinterview responses

Question	Collapsing minor and none		Collapsing major and minor	
	estimate	s.e.	estimate	s.e.
WRPRTIME (F22.a)	30.1	40.7	9.6	28.1
WRPRCOST (F22.b)	6.5	19.3	10.8	31.9
WRPRCHIL (F22.c)	39.4	66.8	7.4	16.8
WRPRTRAN (F22.d)	5.1	15.1	20.0	58.9
WRTIFAM (F24A.a)	4.2	5.7	6.2	8.5
WRTICHOR (F24A.b)	16.8	18.9	6.0	8.1
WRTICLHR (F24A.c)	30.8	35.6	5.0	6.9
WRTIWORK (F24A.d)	49.3	54.8	33.3	38.0
WRTIACTI (F24A.e)	14.3	90.4	41.3	44.9
WRTITRAV (F24A.f)	24.4	28.3	18.2	20.5
WRTIOTH (F24A.g)	14.9	17.2	15.8	18.3
WRMOTUIT (F24B.a)	20.5	6.8	-†	-†
WRMOBOOK (F24B.b)	36.2	44.2	0.0	0.0††
WRMOTRAN (F24B.d)	0.0	0.0††	8.7	26.7
WRMOOTH (F24B.e)	31.5	97.0	31.5	97.0

† The estimate is undefined because the sample in the 'no obstacle' cell is zero.

†† The estimate of the standard error is zero, but the estimate is subject to variation due to sampling error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

5. Conclusion

The Adult Education reinterview for the NHES:95 has been used to examine how consistently adults responded when asked the same questions on two occasions. The gross difference rate was used to measure this consistency.

For most of the questions, the reporting was consistent and only a few modifications need to be considered for future surveys. However, for questions associated with barriers to AE participation, more problems were identified. The important findings and implications are summarized below, followed by some discussions of the methodology of the reinterview.

For questions used to determine whether or not the adult participated in adult education during the last 12 months, the adults responded consistently. The gross difference rates for these questions are either small or moderate. The two questions with moderate, but not statistically significant, gross difference rates were ones that asked about taking work-related activities and personal development courses. Some minor modifications to these two questions could be considered to improve the consistency of these questions and of the overall participation rate. More importantly, the Bias Study findings suggest that respondents may not report all their work-related and personal development courses and this may spur changes in these questions.

For questions about the education background and labor force history of the adults, the adults also gave very consistent responses. The respondents apparently had a good understanding of nearly all of these questions, and they gave the same answers in both the interview and the reinterview. Three questions in this set (questions about acquiring a vocational diploma, whether they had been unemployed and looking for work, and whether their occupation had legal requirements for continuing training) were identified that should be reviewed before future surveys.

For questions about barriers that may have prevented adults from participating in adult education activities, the adults generally did not respond as consistently. Most of the barriers questions had either high or moderate gross difference rates, although most of the estimates were not statistically significant. One approach to limit these response problems is to avoid using measures of intensity (major or minor) when analyzing barriers since there is some evidence to suggest respondents might be more consistent in reporting whether or not it was an obstacle than they were in reporting whether it was a major or minor obstacle. Analysts should consider these apparent response problems when using these questions. Other precautions, such as making sure any differences are large before assigning them much significance, should also be considered.

Given the response problems associated with the questions on barriers, it may be useful to reconsider the method of addressing obstacles. For example, given the difficulty associated with discriminating between major and minor obstacles, this difference might be dropped. Other types of questions about behaviors of adults might also be investigated rather than the current questions. For example, rather than asking directly about barriers to participation, questions could be asked about whether adults took any steps to try to either take courses or obtain information about courses and, if so, whether they were discouraged for specific reasons.

Methodologically, the AE reinterview served its major purposes of identifying questions with high error rates and providing feedback to help improve the design of the questions for future surveys. However, the standard errors of the gross difference rates were often too large to adequately quantify the magnitude of the gross difference rates. Some large gross difference rates were not statistically significant because of these large standard errors. Several options are available to improve the precision of the estimates in future studies, the most obvious being to increase the sample size of the reinterview. Other approaches that should be considered are avoiding oversampling specific groups in the reinterview (participants were oversampled in this study) and using model-based methods (such as ignoring the sampling weights) to estimate the measurement error statistics rather than the full design-based estimates used in this study.

The reconciliation of the responses to different responses to the original interview and the reinterview for a subset of questions did not provide much information about the response bias for the questions. The net difference rates computed from the reconciled responses were not very different from those computed using the unreconciled responses. The primary value of the unreconciled net difference rates was to evaluate whether or not the responses to the reinterview could be considered an independent replication of the original interview. In general, the unreconciled net difference rates supported this assumption.

For future studies, the reconciliation of differences between the original interview and the reinterview should be re-evaluated. This study and the NHES:93 reinterview study found no evidence that the reconciled responses provide valid estimates of response bias. Other methods, such as the Bias Study or record checks studies when they are feasible, are better mechanisms for examining bias.

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APPENDIX

ADULT EDUCATION REINTERVIEW QUESTIONNAIRE

NHES:95 Adult Education Reinterview

INTRO1. Hello, this is (INTERVIEWER) calling for the U.S. Department of Education. Recently, you completed an interview for a U.S. Department of Education study about participation in various kinds of educational activities. For quality control purposes, we are calling back a small number of people to reask a subset of the questions. This usually takes about 5 minutes.

INTRO2. First, I have a few questions about your education, your work experience, and your language background.

A. INITIAL BACKGROUND

A1. What is the highest grade or year of school that you completed?

IBGRADE

UP TO 8TH GRADE	1	(ENTER ACTUAL GRADE, GO TO A2)
9TH TO 11TH GRADE	2	(ENTER ACTUAL GRADE, GO TO A2)
12TH GRADE BUT NO DIPLOMA	3	(GO TO A2)
HIGH SCHOOL DIPLOMA/EQUIVALENT	4	(GO TO A3)
VOC/TECH PROGRAM AFTER HIGH SCHOOL BUT NO VOC/TECH DIPLOMA	5	(GO TO A2)
VOC/TECH DIPLOMA AFTER HIGH SCHOOL	6	(GO TO A2)
SOME COLLEGE BUT NO DEGREE	7	(GO TO A1OV)
ASSOCIATE'S DEGREE	8	(GO TO A2)
BACHELOR'S DEGREE	9	(GO TO A5)
GRADUATE OR PROFESSIONAL SCHOOL BUT NO DEGREE	10	(GO TO A5)
MASTER'S DEGREE (MA, MS)	11	(GO TO A5)
DOCTORATE (PHD, EDD)	12	(GO TO A5)
PROFESSIONAL DEGREE BEYOND BACHELOR'S DEGREE (MEDICINE/MD; DENTISTRY/DDS; LAW/JD/LLB; ETC.)	13	(GO TO A5)
REFUSED	-7	(GO TO A2)
DON'T KNOW	-8	(GO TO A2)

A1OV. Did you earn a vocational or technical diploma after leaving high school?

IBVOCDIP

YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

A2. Do you have a high school diploma or its equivalent, such as a GED?

IBDIPL

YES	1	(GO TO A3)
NO	2	(GO TO A6)
REFUSED	-7	(GO TO A6)
DON'T KNOW	-8	(GO TO A6)

NOTE: Response categories shown in mixed cases (upper and lower) are read to the respondent by the interviewer. Those shown in all upper case are not read.

A3. Did you receive your high school diploma or its equivalent in the U.S.?

IBUSDIPL

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

A4. Did you receive your high school diploma or its equivalent in the past 12 months?

IBDIPLYR

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

A5. Did you complete your high school requirements through a GED test?

IBGED

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

A6. Did you work at a job for pay or income at any time in the past 12 months?

IBWORK12

YES . . . . . 1 (GO TO A7)
NO . . . . . 2 (GO TO A10)
REFUSED . . . . . -7 (GO TO A10)
DON'T KNOW . . . . . -8 (GO TO A10)

A7. Were you self-employed at any time in the past 12 months?

IBSELFEM

YES . . . . . 1 (GO TO A8)
NO . . . . . 2 (GO TO A9)
REFUSED . . . . . -7 (GO TO A9)
DON'T KNOW . . . . . -8 (GO TO A9)

A8. Did you also work for another employer in the past 12 months?

IBOTHEMP

YES . . . . . 1 (GO TO A9)
NO . . . . . 2 (GO TO A10)
REFUSED . . . . . -7 (GO TO A10)
DON'T KNOW . . . . . -8 (GO TO A10)

If A7 = 1 and A8 NE 1 (self-employed only), then autocode A9 (# of employers) = 1.

A9. (Counting your self-employment,) For how many different employers did you work in the past 12 months?

IBEMPL12

NUMBER . . . . . □□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

A10. Now, about your language background. What was the first language you learned to speak?

IBLANG

ENGLISH	1	(GO TO INTRO3)
SPANISH	2	(GO TO A11)
ANOTHER LANGUAGE	91	(GO TO A11)

IBLANGOS SPECIFY_____

REFUSED	-7	(GO TO A11)
DON'T KNOW	-8	(GO TO A11)

Autocode A11 = 1 if A10 = 1.

A11. What language do you speak most at home now?

IBSPEAK

ENGLISH	1
SPANISH	2
(ANOTHER LANGUAGE SPECIFIED IN A10)	3
ANOTHER LANGUAGE	91

IBSPEAOS SPECIFY_____

REFUSED	-7
DON'T KNOW	-8

INTRO3. Now, I'd like to ask you about different kinds of education and training programs, courses, workshops, and seminars you may have taken during the past 12 months. (Please don't include day-time high school programs.)

Ask B1 if A11 NE 1 (main language is other than English). Else, go to box before C1.

B. English as a Second Language

B1. These first questions are about English as a Second Language only. Please do not include other classes here. During the past 12 months, did you have a tutor or take any classes to learn English as a Second Language?

ESLANG

YES	1	(GO TO B1OV)
NO	2	(GO TO BOX BEFORE C1)
REFUSED	-7	(GO TO BOX BEFORE C1)
DON'T KNOW	-8	(GO TO BOX BEFORE C1)

For Participants

B1OV. Is this ESL class a part of a college program?

ESCOLL

YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

If B1OV = 1, ask B6 and B7; then go to box before C1.

B3. What was the main reason you took English as a Second Language classes?
[PROBE: READ LIKELY ANSWER(S)]

ESREASON
- TO IMPROVE, ADVANCE, OR KEEP UP TO DATE ON CURRENT JOB 1
- TO TRAIN FOR A NEW JOB OR A NEW CAREER 2
- TO IMPROVE YOUR BASIC READING, WRITING, OR MATH SKILLS 3
- TO MEET A REQUIREMENT FOR A DIPLOMA, DEGREE, OR CERTIFICATE OF COMPLETION 4

ESREAOS1 SPECIFY_____
- A PERSONAL, FAMILY, OR SOCIAL REASON 5
- TO IMPROVE COMMUNICATION SKILLS 6
- SOME OTHER MAIN REASON 91

ESREAOS2 SPECIFY_____
- REFUSED . . . . . -7
- DON'T KNOW . . . . . -8

B6. In the past 12 months, how many weeks did you attend ESL classes?

ESWHEN NUMBER . . . . . □□

ESWHENUN Unit
- DAYS . . . . . 1 (GO TO B7)
- WEEKS . . . . . 2 (GO TO B7)
- MONTHS . . . . . 3 (GO TO B7)
- SEMESTER . . . . . 4 (GO TO B7)
- QUARTER . . . . . 5 (GO TO B7)
- OTHER . . . . . 91 (GO TO B6OV)

ESWHENOS SPECIFY_____
- REFUSED . . . . . -7 (GO TO B7)
- DON'T KNOW . . . . . -8 (GO TO B7)

B6OV. How many weeks was that?

ESWEEK WEEKS . . . . . □□

Collect number; autocode unit.

B7. For about how many hours (per day/per week) did you attend during the time you were going to ESL classes?

ESHRS NUMBER . . . . . □□

ESHRSUNT Unit
- PER DAY 1
- PER WEEK 2
- REFUSED . . . . . -7
- DON'T KNOW . . . . . -8

B8. In the past 12 months, about how much of your own money would you estimate you paid for tuition, books, transportation, child care, and other expenses to take ESL classes?

ESTUITON

AMOUNT . . . . . $□□,□□□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If A6 NE 1 (not worked in the past 12 months), then go to box before C1.
If A7 = 1 and A8 NE 1 (self-employed only), then go to box before C1.

B14. (Not counting your self-employment,) Was your employer aware that you were taking or took the ESL class?

ESAWARE

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If B14 NE 1 (employer was not aware), then go to box before C1.

B15. Did your employer...

			YES	NO	R	DK
ESEMPREQ	a.	Require you to take these classes?	1	2	-7	-8
ESEMPWP	b.	Give you time off from work with or without pay? .	1	2	-7	-8
ESEMPSPA	c.	Provide classroom space?	1	2	-7	-8
ESEMPPAY	d.	Pay all or part of the cost, including tuition, books, and other costs like transportation?	1	2	-7	-8

Ask C1 if A2 NE 1 (no high school diploma) or A4 = 1 (received high school diploma in the last 12 months).
If A3 NE 1 (foreign high school diploma), ask C1.

C. Basic Skills and GED Preparation

C1. Not including regular day-time high school classes, during the past 12 months, did you have a tutor or take any classes:

			YES	NO	R	DK
BSIMPROV	a.	To improve your basic reading, writing, and math skills?	1	2	-7	-8
BSGED	b.	To prepare to take the General Educational Development, or GED?	1	2	-7	-8
BSHSEQUV	c.	In some other high school equivalency program or adult high school program?	1	2	-7	-8

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If any C1a, b, or c = 1, then ask C2.
If A3 NE 1 (foreign high school diploma)
and C1a-c NE 1, go to D1.
Else, go to D1.

For Participants

C2. What was the main reason you took basic skills or high school completion classes?
[PROBE: READ LIKELY ANSWER(S)]

BSREASON
- TO IMPROVE, ADVANCE, OR KEEP UP TO DATE ON CURRENT JOB 1
- TO TRAIN FOR A NEW JOB OR A NEW CAREER 2
- TO IMPROVE YOUR BASIC READING, WRITING, OR MATH SKILLS 3
- TO MEET A REQUIREMENT FOR A DIPLOMA, DEGREE, OR CERTIFICATE OF COMPLETION 4

BSREAOS1
- SPECIFY_____
- A PERSONAL, FAMILY, OR SOCIAL REASON 5
- SOME OTHER MAIN REASON 91

BSREAOS2
- SPECIFY_____
- REFUSED . . . . . -7
- DON'T KNOW . . . . . -8

C5. In the past 12 months, how many weeks did you attend basic skills or high school completion classes?

BSWHEN
- NUMBER . . . . . □□

BSWHENUN
Unit
- DAYS . . . . . 1 (GO TO C6)
- WEEKS . . . . . 2 (GO TO C6)
- MONTHS . . . . . 3 (GO TO C6)
- SEMESTER . . . . . 4 (GO TO C6)
- QUARTER . . . . . 5 (GO TO C6)
- OTHER . . . . . 91 (GO TO C5OV)

BSWHENOS
- SPECIFY_____
- REFUSED . . . . . -7 (GO TO C6)
- DON'T KNOW . . . . . -8 (GO TO C6)

C5OV. How many weeks was that?

BSWKS
- NUMBER . . . . . □□

Collect number; autocode unit.

C6. For about how many hours (per day/per week) did you attend during the time you were going to the classes?

BSHRS
NUMBER . . . . . □□

BSHRSUNT
Unit
PER DAY 1
PER WEEK 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

C7. In the past 12 months, about how much of your own money would you estimate you paid for tuition, books, transportation, child care, and other expenses to take basic skills or high school completion classes?

BSTUITON
AMOUNT . . . . . $□□,□□□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If A6 NE 1 (not worked in the past 12 months), then go to D1.
If A7 = 1 and A8 NE 1 (self-employed only), then go to D1.

C13. (Not counting your self-employment,) Was your employer aware that you were taking or took the basic skills or high school completion class?

BSAWARE
YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If C13 NE 1 (employer was not aware), then go to D1.

C14. Did your employer . . .

			YES	NO	R	DK
BSEMPREQ	a.	Require you to take these classes?	1	2	-7	-8
BSEMPWP	b.	Give you time off from work with or without pay? .	1	2	-7	-8
BSEMPSPA	c.	Provide classroom space?	1	2	-7	-8
BSEMPPAY	d.	Pay all or part of the cost, including tuition, books, and supplies, and other costs like transportation? .	1	2	-7	-8

D. CREDENTIAL

D1. (Not including the classes you told us about earlier,) During the past 12 months, did you take any courses that are part of a program, or a series of courses associated with a program leading toward...

			YES	NO	R	DK
CRDEGREE	a.	A college or university degree, such as an associate's, bachelor's, or graduate degree?	1	2	-7	-8
CRVOCDIP	b.	A diploma or certificate from a vocational or technical school after high school or a formal vocational training program	1	2	-7	-8

If D1a or b = 1, then ask D2. Else, go to E1.

For Participants

D2. In how many of these degree, diploma, or certificate programs were you enrolled during the past 12 months?

CRPRGNUM
NUMBER . . . . . □□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

D3. In what type of degree, diploma, or certificate program(s) were you working?
[CODE UP TO 5 - CATEGORIES CAN BE ENTERED MORE THAN ONCE FOR MULTIPLE PROGRAMS OF THE SAME PROGRAM TYPE.]

CRDIPLOM
VOC/TECH DIPLOMA AFTER HIGH SCHOOL, BUT BELOW BACHELOR'S DEGREE 1
ASSOCIATE'S DEGREE 2
BACHELOR'S DEGREE 3
MASTER'S DEGREE 4
DOCTORATE (PHD, EDD) 5
PROFESSIONAL DEGREE BEYOND BACHELOR'S DEGREE (MEDICINE/MD; DENTISTRY/DDS; LAW/JD/LLB; ETC.) . . 6
ANOTHER DEGREE 91

CRDIPLOS
SPECIFY_____
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

Now, let's talk about your (CREDENTIAL).

D5. What was the main reason you were working on the (CREDENTIAL)?
[PROBE: READ LIKELY ANSWER(S)]

CRREASON

TO IMPROVE, ADVANCE, OR KEEP UP TO DATE ON CURRENT JOB 1
TO TRAIN FOR A NEW JOB OR A NEW CAREER 2
TO IMPROVE YOUR BASIC READING, WRITING, OR MATH SKILLS 3
TO MEET A REQUIREMENT FOR A DIPLOMA, DEGREE, OR CERTIFICATE OF COMPLETION 4
A PERSONAL, FAMILY, OR SOCIAL REASON, ... 5
SOME OTHER MAIN REASON 91

CRREAOS2 SPECIFY_____

REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If A6 NE 1 (not worked in the past 12 months), then go to E1.
If A7 = 1 and A8 NE 1 (self-employed only), then go to E1.

D17. (Not counting your self employment,) Was your employer aware that you were taking or took the (CREDENTIAL)?

CRAWARE

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If D17 NE 1, then go to E1.

D18. Did your employer . . .

			YES	NO	R	DK
CREMPREQ	a.	Require you to take a (CREDENTIAL)?	1	2	-7	-8
CREMPWP	b.	Give you time off from work with or without pay? .	1	2	-7	-8
CREMPSPA	c.	Provide classroom space?	1	2	-7	-8
CREMPPAY	d.	Pay all or part of the cost, including tuition, books, and other costs like transportation?	1	2	-7	-8

E. APPRENTICESHIP

E1. During the past 12 months, were you in a formal apprenticeship program leading to journeyman status in a skilled trade or craft?

APPRENTI

YES	1	
NO	2	
REFUSED	-7	
DON'T KNOW	-8	

F. CAREER OR JOB RELATED ACTIVITIES

F1. Now, I'd like to ask about courses related to a job or career, whether or not you had a job when you took the courses. (Please don't include courses you already told me about.) Some examples are courses taken at your job, courses taken somewhere else that relate to your job or a new career, or courses for a license or certification you need for your job. Have you taken any of these in the past 12 months?

WRACTY

YES	1	(GO TO F2)
NO	2	(GO TO F19)
REFUSED	-7	(GO TO F19)
DON'T KNOW	-8	(GO TO F19)

For Participants

F2. (Not counting courses you took for a credential program,) how many career or job related courses did you take during the past 12 months?

WRNUM

NUMBER	□□
REFUSED	-7
DON'T KNOW	-8

WRCOURSE. Now, I'm going to ask about the names and general subject matter of the course(s) you took. By general subject matter we mean the broad topic area, such as business management, computer software, auto mechanics, and so on.

F3. What was the course name and what was the general subject matter for (this/each) course?

WRNAME
WRSUBJ

NAME_____	SUBJECT_____
NAME_____	SUBJECT_____
NAME_____	SUBJECT_____
NAME_____	SUBJECT_____
REFUSED	-7
DON'T KNOW	-8

For a Selected Course

F4. (Rather than asking you to tell us about all these courses, the computer has selected one course automatically.) Let's talk about (COURSE NAME). What was the main reason you took part in (COURSE NAME)?
[PROBE: READ LIKELY ANSWER(S)]

WRREASON

TO IMPROVE, ADVANCE, OR KEEP UP TO DATE ON CURRENT JOB 1
TO TRAIN FOR A NEW JOB OR A NEW CAREER 2
TO IMPROVE YOUR BASIC READING, WRITING, OR MATH SKILLS 3
TO MEET A REQUIREMENT FOR A DIPLOMA, DEGREE, OR CERTIFICATE OF COMPLETION 4
A PERSONAL, FAMILY, OR SOCIAL REASON 5
SOME OTHER MAIN REASON 91

WRREAOS2 SPECIFY_____

REFUSED . . . . . -7
DON'T KNOW . . . . . -8

F6. In the past 12 months, how many weeks did you attend (COURSE NAME)?

WRWHEN NUMBER . . . . . □□

WRWHENUN Unit

DAYS	1	(GO TO F7)
WEEKS	2	(GO TO F7)
MONTHS	3	(GO TO F7)
SEMESTER	4	(GO TO F7)
QUARTER	5	(GO TO F7)
OTHER	91	(GO TO F6OV)

WRWHENOS SPECIFY_____

REFUSED	-7	(GO TO F7)
DON'T KNOW	-8	(GO TO F7)

F6OV. How many weeks was that?

WRWKS WEEKS . . . . . □□

Collect Number; autocode unit.

F7. For about how many hours (per day/per week) did you attend?

WRHRS NUMBER . . . . . □□

WRHRSUNT Unit

PER DAY 1
PER WEEK 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

F8. In the past 12 months, about how much of your own money would you estimate you paid for tuition, books, transportation, child care, and other expenses to take (COURSE NAME)?

WRTUITON

AMOUNT . . . . . $□□,□□□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If A6 NE 1 (not worked in the past 12 months), then go to F18.
If A7 = 1 and A8 NE 1 (self-employed only), then go to F18.

F12. ((Not counting your self-employment,)/(Not counting your work-study or assistantship,)) Was your employer aware that you were taking or took this course?

WRAWARE

YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If F12 NE 1, go to F18.

F13. Did your employer . . .

			YES	NO	R	DK
WREMPREQ	a.	Require you to take (COURSE NAME)?	1	2	-7	-8
WREMPWP	b.	Give you time off from work with or without pay? .	1	2	-7	-8
WREMPSPA	c.	Provide classroom space?	1	2	-7	-8
WREMPPAY	d.	Pay all or part of the cost, including tuition, books, and other costs like transportation?	1	2	-7	-8

Go to G1.

For Non-Participants

F18. In the past 12 months, did you have an interest in taking any career or job related courses?

WRINTRST

YES . . . . . 1 (GO TO F19)
NO . . . . . 2 (GO TO BOX BEFORE F25)
REFUSED . . . . . -7 (GO TO BOX BEFORE F25)
DON'T KNOW . . . . . -8 (GO TO BOX BEFORE F25)

F19. Would you say you were very interested, somewhat interested, or slightly interested in taking career or job related courses?

WRHOWINT

VERY INTERESTED 1
SOMEWHAT INTERESTED 2
SLIGHTLY INTERESTED 3
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

F20. Of the career or job related courses that you were interested in, did you know of any courses you could have taken in the past 12 months?

WRKNOW

YES	1	(GO TO F21)
NO	2	(GO TO BOX BEFORE F25)
REFUSED	-7	(GO TO BOX BEFORE F25)
DON'T KNOW	-8	(GO TO BOX BEFORE F25)

If NUMKID 12 = 0, do not display F21c.

F21. Now, I'm going to read a short list of things that may have prevented you from taking career or job related courses. For each one, please tell me if it was a major obstacle, a minor obstacle, or not an obstacle. How about...
[PROBE: Was that a major obstacle, minor obstacle, or not an obstacle?]
[IF RESPONDENTS ANSWER "NO" IN F21e, ENTER "3" AND GO TO BOX BEFORE F25.
ELSE, PROBE: Was that a major or minor obstacle? THEN, COLLECT VERBATIM RESPONSE.]

			MA	MI	NOT	R	DK
WRPRTIME	a.	Time	1	2	3	-7	-8
WRPRCOST	b.	Money or cost	1	2	3	-7	-8
WRPRCHIL	c.	Child care	1	2	3	-7	-8
WRPRTRAN	d.	Transportation	1	2	3	-7	-8
WRPROTH	e.	Was there any other obstacle?	1	2	3	-7	-8
WRPROTOS		What was that?_____					

If only one major in F21,
autocode F22 = F21 major.
Else, display categories rated major in F21.
If only one minor and no major in F21,
autocode F22 = F21 minor.
Else, display categories rated minor in F21.
If no major and no minor in F21, go to box before F25.

F22. [DISPLAY RESPONSES IN F21]
Of the reasons you said were (major/minor) obstacles, what was the main thing that prevented you from taking career or job related courses?

WRPRGEN

TIME	1	(GO TO F23A)
MONEY OR COST	2	(GO TO F23B)
CHILD CARE	3	(GO TO F23C)
TRANSPORTATION	4	(GO TO F23D)
(RESPONSE IN F21e)	5	(GO TO BOX BEFORE F25)
REFUSED	-7	(GO TO BOX BEFORE F25)
DON'T KNOW	-8	(GO TO BOX BEFORE F25)

If A6 NE 1 (not worked in the past 12 months),
do not display F23Ac and F23Ad.
If NUMKID12 = 0, do not display F23Bc.
If F23Ag, F23Be, F23Cc, F23Dd = 1 or 2,
collect verbatim responses.

BEST COPY AVAILABLE

F23. [DISPLAY LIST ASSOCIATED WITH MAIN OBSTACLE IN F22]
Now, I'm going to read a short list of (time/money or cost/child care/transportation) related problems that may have prevented you from taking career or job related courses. For each statement, please tell me if it was a major obstacle, a minor obstacle, or not an obstacle for you. How about...
[PROBE: Was that a major obstacle, minor obstacle, or not an obstacle?]
[IF RESPONDENTS ANSWER "NO" IN F23Ag, F23Be, F23Cc, F23Dd, ENTER "3" AND GO TO BOX BEFORE F25.
ELSE, PROBE: Was that a major or minor obstacle? THEN, COLLECT VERBATIM RESPONSE.]

		MA	MI	NOT	R	DK
	A. TIME					
WRTIFAM	a. A desire to spend time with your family.	1	2	3	-7	-8
WRTICHOR	b. A need to take care of family duties or chores around the house	1	2	3	-7	-8
WRTICLHR	c. Being unable to take courses offered only during work hours	1	2	3	-7	-8
WRTIWORK	d. Work responsibilities that do not permit you to take courses either during or after work hours	1	2	3	-7	-8
WRTIACTI	e. Activities outside of work that conflict with course schedule	1	2	3	-7	-8
WRTITRAV	f. The travel time to and from courses	1	2	3	-7	-8
WRTIOTH	g. Another time related problem	1	2	3	-7	-8
WRSPOTOS	What was that?_____					
	B. MONEY OR COST					
WRMOTUIT	a. The amount of tuition and fees for courses	1	2	3	-7	-8
WRMOBOOK	b. The cost of books and supplies for courses	1	2	3	-7	-8
WRMOCHIL	c. The cost of child care.	1	2	3	-7	-8
WRMOTRAN	d. The cost of transportation.	1	2	3	-7	-8
WRMOOTH	e. Another money or cost related problem	1	2	3	-7	-8
WRSPOTOS	What was that?_____					
	C. CHILD CARE					
WRCHCOST	a. The cost of child care.	1	2	3	-7	-8
WRCHAVAL	b. The availability of child care.	1	2	3	-7	-8
WRCHOTH	c. Another problem with child care	1	2	3	-7	-8
WRSPOTOS	What was that?_____					
	D. TRANSPORTATION					
WRTRCOST	a. The cost of transportation.	1	2	3	-7	-8
WRTRAVAL	b. The availability of transportation.	1	2	3	-7	-8
WRTRTIME	c. The travel time to and from courses	1	2	3	-7	-8
WRTROTH	d. Another problem with transportation	1	2	3	-7	-8
WRSPOTOS	What was that?_____					

If only one major in F23, autocode F24 = F23 major.
Else, display only categories rated major in F23.
If only one minor and no major in F23,
autocode F24 = F23 minor.
Else, display only categories rated minor in F23.
If no major and no minor in F23,
go to box before F25.

F24. [DISPLAY CATEGORIES IN F23)
Among the (time/money or cost/transportation/child care) related problems you indicated as (major/minor) obstacles, what was the most important obstacle?

WRPRSPEC [IF NECESSARY, USE DISPLAY AS PROBES]

A. TIME

A DESIRE TO SPEND TIME WITH YOUR FAMILY	1
A NEED TO TAKE CARE OF FAMILY DUTIES OR CHORES AROUND THE HOUSE	2
BEING UNABLE TO TAKE COURSES OFFERED ONLY DURING WORK HOURS	3
WORK RESPONSIBILITIES THAT DO NOT PERMIT YOU TO TAKE COURSES EITHER DURING OR AFTER WORK HOURS	4
ACTIVITIES OUTSIDE OF WORK THAT CONFLICT WITH COURSE SCHEDULE	5
THE TRAVEL TIME TO AND FROM COURSES	6
(VERBATIM RESPONSE IN F23Ag)	7

B. MONEY OR COST

THE AMOUNT OF TUITION AND FEES FOR COURSES	1
THE COST OF BOOKS AND SUPPLIES FOR COURSES	2
THE COST OF CHILD CARE	3
THE COST OF TRANSPORTATION	4
(VERBATIM RESPONSE IN F23Be)	5

C. CHILD CARE

THE COST OF CHILD CARE	1
THE AVAILABILITY OF CHILD CARE	2
(VERBATIM RESPONSE IN F23Cc)	3

D. TRANSPORTATION

THE COST OF TRANSPORTATION	1
THE AVAILABILITY OF TRANSPORTATION	2
THE TRAVEL TIME TO AND FROM COURSES	3
(VERBATIM RESPONSE IN F23Dd)	4

If A6 = 1 (worked in the past 12 months), ask F25.
If A7 NE 1 or A8 = 1 (not self-employed only), then ask F25. Else, go to G1.

F25. Did your employer offer any career or job related courses?

WREMPOFF

YES	1
NO	2
REFUSED	-7
DON'T KNOW	-8

G. Other Formal Structured Activities

G1. Now, I am going to ask about any other courses where there was an instructor. (Please don't repeat any courses (and programs) you have already told us about.) These might include things like arts and crafts, sports or recreation, first aid or childbirth, Bible study, or any other types of courses we haven't talked about yet. Did you take any of these or other courses in the past 12 months?

SAACTY

YES	1	(GO TO G2)
NO	2	(GO TO BOX BEFORE H1)
REFUSED	-7	(GO TO BOX BEFORE H1)
DON'T KNOW	-8	(GO TO BOX BEFORE H1)

For Participants

G2. Altogether, how many of these courses did you take during the past 12 months?

SANUM

NUMBER	□□
REFUSED	-7
DON'T KNOW	-8

SACOURSE. Now, I'm going to ask about the names and general subject matter of the course(s) you took. By general subject matter we mean the broad topic area, such as health, arts and crafts, sports, and so on.

G3. What was the course name and what was the general subject matter for (this/each) course?

SANAME
SASUBJ

NAME_____		SUBJECT_____	
NAME_____		SUBJECT_____	
NAME_____		SUBJECT_____	
NAME_____		SUBJECT_____	
REFUSED	-7		
DON'T KNOW	-8		

H. Computer-only or Interactive Video-only Instruction on the Job

If A6 NE 1 (not worked in the past 12 months), then go to I14.

H1. At your job during the past 12 months, did you learn to do any specific tasks for your job using computer-based or interactive video instruction, where you worked only with a computer or interactive video without an instructor present?

CVONLY

COMPUTER INSTRUCTION	1	(GO TO H2)
INTERACTIVE VIDEO INSTRUCTION	2	(GO TO H2)
BOTH	3	(GO TO H2)
NONE	4	(GO TO I14)
REFUSED	-7	(GO TO I14)
DON'T KNOW	-8	(GO TO I14)

For Participants

H2. Altogether, how many of these computer or video activities did you do during the past 12 months?

CVNUM
NUMBER . . . . . □□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

I. REMAINING BACKGROUND

I14. Does your occupation have legal or professional requirements for continuing training or education?

REQUIRMN
YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If A6 NE 1, autocode I24 = 0 and go to CLOSE.

I24. How many months have you worked for pay or income in the past 12 months?

IBWORKMO
MONTHS . . . . . □□
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

If I24 = 12, then go to box before I28.

I25. At any time during the past 12 months, have you been unemployed and looking for work for as long as a month?

UNEMLOOK
YES 1
NO 2
REFUSED . . . . . -7
DON'T KNOW . . . . . -8

Ask I28 except if A7 = 1 and A8 NE 1 (self-employed only) and go to CLOSE. Else, ask I29 if A7 = 1 and A8 NE 1 (self-employed only).

I28. Are you eligible for the following benefits through any of your current job?

			YES	NO	R	DK
MEDICAL	a.	Medical or hospital insurance?	1	2	-7	-8
SICKPAY	b.	Sick leave with full pay?	1	2	-7	-8
VACATPAY	c.	Vacation with full pay?	1	2	-7	-8
RETIRMNT	d.	Pension plan or retirement program?	1	2	-7	-8

I29. Do you have the following benefits as a part of your business of being self-employed?

			YES	NO	R	DK
MEDICAL	a.	Medical or hospital insurance?	1	2	-7	-8
RETIRMNT	b.	Pension plan or retirement program?	1	2	-7	-8

CLOSE. Those are all the questions I have. Thank you again for your time.

Listing of NCES Working Papers to Date

Number	Title	Contact
94-01	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05	Cost-of-Education Differentials Across the States	William Fowler
94-06	Six Papers on Teachers from the 1990-91 SASS and Other Related Surveys	Dan Kasprzyk
94-07	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01	Schools and Staffing Survey: 1994 papers presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk
95-03	Schools and Staffing Survey: 1990-91 SASS Cross-Questionnaire Analysis	Dan Kasprzyk

Listing of NCES Working Papers to Date (Continued)

Number	Title	Contact
95-04	National Education Longitudinal Study of 1988: Second Follow-up Questionnaire Content Areas and Research Issues	Jeffrey Owings
95-05	National Education Longitudinal Study of 1988: Conducting Trend Analyses of NLS-72, HS&B, and NELS:88 Seniors	Jeffrey Owings
95-06	National Education Longitudinal Study of 1988: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data	Jeffrey Owings
95-07	National Education Longitudinal Study of 1988: Conducting Trend Analyses HS&B and NELS:88 Sophomore Cohort Dropouts	Jeffrey Owings
95-08	CCD Adjustments to the 1990-91 SASS: A Comparison of Estimates	Dan Kasprzyk
95-09	The Results of the 1993 Teacher List Validation Study (TLVS)	Dan Kasprzyk
95-10	The Results of the 1991-92 Teacher Follow-up Survey (TFS) Reinterview and Extensive Reconciliation	Dan Kasprzyk
95-11	Measuring Instruction, Curriculum Content, and Instructional Resources: The Status of Recent Work	Sharon Bobbitt & John Ralph
95-12	Rural Education Data User's Guide	Samuel Peng

Listing of NCES Working Papers to Date (Continued)

Number	Title	Contact
95-13	Assessing Students with Disabilities and Limited English Proficiency	James Houser
95-14	Empirical Evaluation of Social, Psychological, & Educational Construct Variables Used in NCES Surveys	Samuel Peng
95-15	Classroom Instructional Processes: A Review of Existing Measurement Approaches and Their Applicability for the Teacher Follow-up Survey	Sharon Bobbitt
95-16	Intersurvey Consistency in NCES Private School Surveys	Steven Kaufman
95-17	Estimates of Expenditures for Private K-12 Schools	Steve Broughman
95-18	An Agenda for Research on Teachers and Schools: Revisiting NCES' Schools and Staffing Survey	Dan Kasprzyk
96-01	Methodological Issues in the Study of Teachers' Careers: Critical Features of a Truly Longitudinal Study	Dan Kasprzyk
96-02	Schools and Staffing Survey (SASS): 1995 Selected papers presented at the 1995 Meeting of the American Statistical Association	Dan Kasprzyk
96-03	National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues	Jeffrey Owings
96-04	Census Mapping Project/School District Data Book	Tai Phan

Listing of NCES Working Papers to Date (Continued)

Number	Title	Contact
96-05	Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey	Dan Kasprzyk
96-06	The Schools and Staffing Survey (SASS) for 1998-99: Design Recommendations to Inform Broad Education Policy	Dan Kasprzyk
96-07	Should SASS Measure Instructional Processes and Teacher Effectiveness?	Dan Kasprzyk
96-08	How Accurate are Teacher Judgments of Students' Academic Performance?	Jerry West
96-09	Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS	Dan Kasprzyk
96-10	1998-99 Schools and Staffing Survey: Issues Related to Survey Depth	Dan Kasprzyk
96-11	Towards an Organizational Database on America's Schools: A Proposal for the Future of SASS, with comments on School Reform, Governance, and Finance	Dan Kasprzyk
96-12	Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers: Data from the 1989 Teacher Followup Survey	Dan Kasprzyk
96-13	Estimation of Response Bias in the NHES:95 Adult Education Survey	Steven Kaufman
96-14	The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component	Steven Kaufman

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